

WHAT IS CLAIMED IS:

1 1. A nucleic acid segment comprising at least 10
2 contiguous nucleotides from a sequence shown in Table 1
3 including a polymorphic site; or the complement of the
4 segment.

1 2. The nucleic acid segment of claim 1, wherein the
2 segment is less than 100 bases.

1 3. The nucleic acid segment of claim 1 that is
2 DNA.

1 4. The nucleic acid segment of claim 1 that is RNA.

1 5. The segment of claim 1 that is less than 50
2 bases.

1 6. The segment of claim 1 that is less than 20
2 bases.

1 7. The segment of claim 1, wherein the polymorphic
2 site is diallelic.

1 8. An allele-specific oligonucleotide that
2 hybridizes to a sequence shown in Table 1 or its complement.

1 9. The allele-specific oligonucleotide of claim 8
2 that is a probe.

1 10. The allele-specific oligonucleotide of claim 9,
2 wherein the a central position of the probe aligns with the
3 polymorphic site in the sequence.

1 11. The allele-specific oligonucleotide of claim 8
2 that is a primer.

20060701 00000000

1 12. The allele-specific oligonucleotide of claim
2 11, wherein the 3' end of the primer aligns with the
3 polymorphic site of the segment.

1 13. A method of analyzing a nucleic acid, comprising:
2 obtaining the nucleic acid from a subject; and determining a
3 base occupying any one of the polymorphic sites shown in Table
4 1.

1 14. The method of claim ¹³15, wherein the determining
2 comprises determining a set of bases occupying a set of the
3 polymorphic sites shown in Table 1.

1 15. The method of claim ¹³16, wherein the nucleic acid
2 is obtained from a plurality of subjects, and a base occupying
3 one of the polymorphic positions is determined in each of the
4 subjects, and the method further comprises testing each
5 subject for the presence of a phenotype, and correlating the
6 presence of the phenotype with the base.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100